USEPA

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601

ROD R. BLAGOJEVICH, GOVERNOR RENEE CIPRIANO, DIRECTOR

217/524-3300

August 7, 2003

CERTIFIED MAIL
7002 3150 0000 1219 8025

Mr. Henry Lopes
Techalloy Company Inc.
P.O. Box 423
Union, Illinois 60180-0423

US EPA RECORDS CENTER REGION 5
1000367

Re: 1110900003 -- McHenry County
Techalloy
ILD005178975
Log No. C- 548-M-6
RCRA Closure

Dear Mr. Lopes:

This is in response to the draft Environmental Land Use Control (ELUC) document dated June 5, 2003 submitted by Carlos Serna, P.G. of Matrix Environmental, Inc. (Matrix) on behalf of Techalloy Company, Inc. in Union, Illinois. A RCRA closure plan for the Cyanide Tank, Acid Treatment Unit and Acid Pits units at the Techalloy facility was initially approved on July 5, 1990 (Log No. C-548) and modified by Illinois EPA on January 29, 2003 (Log No. C-548-M-1). Condition 3 of Illinois EPA's January 29, 2003 approval letter stated that no further action was required to complete closure of these units other than the establishment of an Environmental Land Use Control (ELUC) which: (1) prohibits the installation of potable drinking water wells at the site; (2) restricts future land use to industrial or commercial activities; and (3) establish long-term maintenance requirements for the engineered barriers over the Acid Pits and Acid Treatment Unit.

A draft ELUC was submitted on March 28, 2003 by Matrix in response to Illinois EPA's January 29, 2003 letter. Illinois EPA determined that the draft ELUC for the Acid Treatment Unit and Acid Pits at the Techalloy facility could not be approved for reasons stated in a April 21, 2003 letter. Matrix's June 5, 2003 ELUC submittal attempted to address the deficiencies noted in Illinois EPA's April 21, 2003 letter.

The June 5, 2003 submittal from Matrix was reviewed as a request to modify the approved closure plan for the three former hazardous waste management units at the above-referenced facility. This request cannot be approved at this time for the following reasons:

1. Illinois EPA's No Further Action determination of January 29, 2003 required that an ELUC be established to eliminate usage of all on-site groundwater. The proposed ELUC does not contain such a restriction.

2. Exhibit B-2B of the ELUC must be revised. The ELUC approved by the Illinois EPA for the Techalloy facility must be limited to the RCRA closure activities approved by the Illinois EPA's January 29, 2003 letter. Illinois EPA's April 21, 2003 letter, sent in response to the March 28, 2003 proposed draft ELUC submitted by Matrix, requested that the Exhibit B-2 scaled map be limited to the RCRA units for which the ELUC applied. As requested, Exhibit B-2B of the subject submittal did include a scaled map showing (a) the location of the RCRA Units (the Acid Treatment Area and Acid Pits Area). However, (b) the horizontal and vertical extent of contaminants of concern above TACO Tier I Remedial Objectives from soil tests performed *as part of RCRA closure activities*, was not depicted. Illinois EPA does not have the authority to approve an ELUC including Figure B-2B as currently shown. Illinois EPA's involvement was limited to the soil test results submitted for the two RCRA units.

   The Figure B-2B diagram must be revised and depict Tier I exceedances of soil tested as part of RCRA closure activities. Exhibit B-2B should be entitled "Soil Contamination above TACO Tier 1 Remediation Objectives under Illinois EPA RCRA closure for the Acid Treatment Unit and Acid Pits Unit for which this ELUC applies". The line delineating the soil contamination should encompass soil sampling locations TT-1 through T-5 in the Acid Treatment Area and soil samples TAH 1 through TAH-7 in the Acid Pits Area.

3. Paragraph three of the ELUC must also be revised to state "Whereas, Techalloy Company, Incorporated intends to request risk-based, site specific soil remediation objectives from Illinois EPA ...". This requirement is based on the fact that the subject RCRA closure project has only dealt with soil contamination at the site.

4. A revised draft ELUC addressing the deficiencies noted above must be submitted to Illinois EPA for review and approval. A completed LPC- PA18 form must accompany this submittal. Overall closure activities at this facility must meet the requirements of 35 Ill. Adm. Code 725 and 742.

This action shall constitute Illinois EPA's final action on the subject submittal. Within 35 days after the date of mailing of Illinois EPA's final decision, the applicant may petition for a hearing before the Illinois Pollution Control Board to contest the decision of Illinois EPA, however, the 35-day period for petitioning for a hearing may be extended for a period of time not to exceed 90 days by written notice provided to the Board from the applicant and the Illinois EPA within the 35-day initial appeal period.

Work required by this letter, your submittal(s) or the regulations may also be subject to other laws governing professional services, such as the Illinois Professional Land Surveyor Act of 1989, the Professional Engineering Practice Act of 1989, the Professional Geologist Licensing Act, and the Structural Engineering Licensing Act of 1989. This letter does not relieve anyone from compliance with these laws and the regulations adopted pursuant to these laws. All work that falls within the scope and definitions of these laws must be performed in compliance with them. The Illinois EPA may refer any discovered violation of these laws to the appropriate regulating authority.

Should you have any questions regarding this matter, please contact Karen Nachtwey (217) 524-3273.

Sincerely,

Joyce L. Munie, P.E.
Manager, Permit Section
Bureau of Land

JLM:KEN:bjh\031703s.doc

Attachment: Form LPC-PA-18

cc: Techalloy - Scott Carr - Environmental Coordinator
Matrix Environmental, Inc. - Carlos Serna
USEPA Region V - Alan Wojtas

USEPA
A-47

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276, 217-782-3397
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601, 312-814-6026

ROD R. BLAGOJEVICH, GOVERNOR RENEE CIPRIANO, DIRECTOR

217/524-3300

Certified Mail
7002 3150 0000 1253 0443

May 11, 2005

Techalloy Company, Inc.
Attn: Mr. Henry Lopes
P.O. Box 423
Union, Illinois 60180-0423

Re: 1110900003 -- McHenry County
Techalloy Inc
ILD005178975
Log No. C-548-M-7
RCRA Closure

Dear Mr. Lopes:

This is in response to the January 10, 2005 submittal made on your behalf by Carlos J. Serna, P.G., Matrix Environmental, Inc., as supplemented by a March 21, 2005 facsimile from Matrix Environmental, Inc. These submittals dealt with certain aspects of RCRA closure of two former hazardous waste management units at the above-referenced facility referred to as the "Acid Pit Area" and the "Acid Treatment Unit."

A plan to complete closure of the subject units was initially approved by Illinois EPA on July 5, 1996. Several modifications to this plan have subsequently been approved by Illinois EPA, the last being on January 29, 2003. This last approval letter determined that closure of the subject units could be achieved by establishing: (1) an engineered barrier over them; and (2) an institutional control which requires that the barriers be maintained, restricts exposure to the soils underlying the barrier; and restricts use of all groundwater at the facility.

The subject submittals contain proposed Tier 3 evaluations and rationale for not prohibiting the use of deep bedrock groundwater at the Techalloy facility (the use of shallow groundwater at the site is still proposed to be prohibited). The submittal then provides two different Tier 3 evaluations: (1) incomplete exposure Pathway; and (2) alternative model.

Illinois EPA reviewed the subject submittals as a request to modify the approved closure plan for the Acid Pit Area and the Acid Treatment Unit. The results of this review found that the submittals cannot be approved as a closure plan modification for the following reasons:

1. Regarding the submitted evaluation of an incomplete exposure pathway:

a. 35 Ill. Adm. Code 742.925 identifies the information which must be provided if a facility desires to demonstrate a certain exposure route is incomplete. The subject submittal did not make reference to this regulation nor did it provide the required information in any type of organized fashion.

b. The procedures in 35 Ill. Adm. Code 742.925 focus mainly on an exposure route not being active. The deeper bedrock groundwater is indeed being used and thus it would not appear as though this is the appropriate Tier 3 option to use in proposing that no groundwater use restriction be placed on the deeper bedrock groundwater.

2. Regarding the submitted evaluation using an alternative model:

a. 35 Ill. Adm. Code 742.910 identifies the information which must be provided if a facility desires to use an alternative model in the development of remediation objectives for a given exposure route. The subject submittal did not make reference to this regulation nor did it provide the required information in any type of organized fashion.

b. The alternative model selected models horizontal flow in an aquifer. Thus, it is not appropriate to use it to model vertical flow of groundwater.

c. The alternative model was used to evaluate the vertical migration of chlorinated solvents. The contaminants of concern for the subject units are metals.

3. Any discussion of geology and hydrogeology of the site must contain site-specific information and be developed as a stand-alone detailed document to support any proposed Tier 3 analysis. All data used in the development of this discussion and in the development of Tier 3 remediation objectives must be contained in this document. Guidance regarding the development and organization of such a report can be found in Illinois EPA's RCRA closure plan guidance document available on its internet site (epa.state.il.us).

As soils are the only environmental media of concern for this closure project, guidance regarding the development of soil remediation objectives for RCRA projects can be found on Illinois EPA's internet site at www.epa.state.il.us/land/waste-mgmt/rcra/rcra-remediation-projects. It must be noted that Illinois EPA previously determined no further action was necessary to complete closure of the cyanide tank unit present at the facility.

This action shall constitute Illinois EPA's final action on the subject submittals. Within 35 days after the date of mailing of Illinois EPA's final decision, the applicant may petition for a hearing

before the Illinois Pollution Control Board to contest the decision of Illinois EPA, however, the 35-day period for petitioning for a hearing may be extended for a period of time not to exceed 90 days by written notice provided to the Board from the applicant and the Illinois EPA within the 35-day initial appeal period.

Work required by this letter, your submittals or the regulations may also be subject to other laws governing professional services, such as the Illinois Professional Land Surveyor Act of 1989, the Professional Engineering Practice Act of 1989, the Professional Geologist Licensing Act, and the Structural Engineering Licensing Act of 1989. This letter does not relieve anyone from compliance with these laws and the regulations adopted pursuant to these laws. All work that falls within the scope and definitions of these laws must be performed in compliance with them. The Illinois EPA may refer any discovered violation of these laws to the appropriate regulating authority.

Sincerely,

Joyce L. Munie, P.E.
Manager, Permit Section
Bureau of Land

JLM:KEN:bjh\052493s.doc

cc: Techalloy – Scott Carr
Matrix Environmental, Inc. – Carlos Serna
USEPA Region V – Alan Wojtas

USEPA

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601

ROD R. BLAGOJEVICH, GOVERNOR RENEE CIPRIANO, DIRECTOR

217/524-3300

April 21, 2003

CERTIFIED MAIL
7002 2030 0001 1879 5494

Mr. Henry Lopes
Techalloy Company Inc.
P.O. Box 423
Union, Illinois 60180-0423

Re: 1110900003 -- McHenry County
Techalloy
ILD005178975
Log No. C- 548-M-2
RCRA Closure

Dear Mr. Lopes:

This is in response to the March 28, 2003 draft Environmental Land Use Control document prepared and submitted by Carlos Serna, P.G. of Matrix Environmental, Inc. on behalf of Techalloy Company, Inc. in Union, Illinois. A RCRA closure plan for the Cyanide Tank, Acid Treatment Unit and Acid Pits units at the Techalloy facility was initially approved on July 5, 1990 (Log No. C-548) and modified by Illinois EPA on January 29, 2003 (Log No. C-548-M-1).

The requirement of an ELUC was a condition for approval of Illinois EPA's January 29, 2003 closure modification letter for the Acid Treatment and Acid Pit units at the Techalloy facility. Remediation objectives for these units were based on 35 Ill. Adm. Code 742.1000, establishment of an institutional control meeting the requirements of 35 Ill. Adm. Code 742, Subpart J. Condition 3 of the January 29, 2003 letter stated that an ELUC must be established at the site to: (1) prohibit the installation of potable drinking water wells at the site; (2) restrict future land use to industrial or commercial activities; and (3) establish long-term maintenance requirements for engineered barriers over the Acid Pits and Acid Treatment Unit.

The subject submittal was reviewed as a closure plan modification request .The Illinois EPA determined that the draft ELUC for the Acid Treatment Unit and Acid Pits at the Techalloy facility could not be approved at this time for the following reasons:

1. The draft ELUC for Techalloy contained documentation much broader in scope and relating to corrective action activities performed under USEPA authority. The ELUC eventually approved by the Illinois EPA for the Techalloy facility must be limited to the RCRA closure activities approved by the Illinois EPA's January 29, 2003 letter. It must address soil contamination exceeding TACO Remedial Objectives (ROs) found in testing

soils required by implementation of RCRA closure activities for the Acid Treatment Unit and Acid Pits Area. With regard to above, the Illinois EPA requests that draft a ELUC to be resubmitted to the Illinois within 45 days of this letter and incorporate the revisions in Items 2 through 10 below.

2. The language in the third and fourth paragraph of Illinois EPA's model ELUC needs to be incorporated and must include the 10-digit LPC number 1110900003.

3. Section One of the ELUC must refer to Exhibit A as set forth in the model ELUC. Exhibit A should include the Parcel Index Number; Location: City, County, State; Name of Site; Common Address; Legal description; and the Real Estate Tax Index or Parcel Number.

4. Exhibit B, also referred to in Section One of the ELUC, must incorporate the following language and include, as attachments, maps as further described in items 5 through 7 below:

> "Attached as Exhibit B are site maps: Exhibit B-1 shows the legal boundary of the property, Exhibit B-2 show the location, nature and extent of soil contamination above the applicable remediation objectives for soil in the RCRA closure units for which this ELUC applies; and Exhibit B-3 show the physical features (in this case an engineered barrier) for which this ELUC applies, as required under 35 Ill. Adm. Code 742."

5. The Exhibit B-1 map must be a topographical map showing Techalloy and the surrounding area and Techalloy's legal property boundary. The exhibit should be identified as Exhibit B-1 - Techalloy Legal Property Boundary."

6. The Exhibit B-2 scaled map must be limited to the RCRA units addressed by the IEPA closure plan to which this ELUC applies. Groundwater wells, groundwater plumes, Geologic Cross-Sections as shown in Figures 1 through 9 of the submitted draft ELUC do not relate to the subject RCRA units. Exhibit B-2 should instead include a scaled map showing; (a) the location of the RCRA Units (the Acid Treatment Area and Acid Pits Area) for which the ELUC applies; and (b) the horizontal and vertical extent of contaminants of concern above TACO Tier I Remedial Objectives from soil tests performed as part of RCRA closure activities. Exhibit B-2 should be identified as Location, Nature and Extent of Soil Contamination Above Tier I ROs from Units Subject to RCRA Closure Under Illinois EPA Oversight.

7. Exhibit B-3 must clearly show the limits of the asphalt cap as it relates to the subject RCRA Units. A shaded or crosshatched area should define the aerial extent of the asphalt

area. The elevations shown in Figure 10 of the proposed draft are not necessary in this ELUC. Figure 11 of the proposed draft ELUC, showing the cross-section of the Acid House and Treatment Room Barriers, should be included. Exhibit B-3 should consist of two drawings: Exhibit B-3A – Extent of Asphalt Engineered Barrier and Exhibit B-3B – Cross Section of Acid House and Treatment Room Barriers.

8. The Engineered Barrier Inspection and Maintenance Section on page 5 of the proposed draft should be included in the ELUC document. The remaining portion of Section 1 of the proposed draft on pages 2-5 should be removed from the ELUC.

9. Condition 3d.of the January 29, 2003 closure plan modification letter required that a site safety plan meeting the requirements of 29 CFR be developed and implemented any time construction/excavation takes place in the soil beneath the engineered barriers created as part of this project. Among other things, this plan must restrict worker exposure and other person's exposure to the soil. As such, the ELUC must include this restriction.

10. Condition 3g. of the January 29, 2003 closure plan modification letter specifies that there must be a requirement that groundwater at the site may not be used for any purpose, except for investigation/remediation of any environmental contamination at the site. On page 2 of the proposed draft ELUC it is stated that there are three wells located within the facility. Drinking water and non-contact cooling water for the facility are supplied by three deep (200 feet below ground surface) wells. These wells must be abandoned if Techalloy desires to achieve "clean closure of the former RCRA interim status hazardous waste management units at the subject facility in accordance with Illinois EPA-s January 29, 2003 letter.

11. The submittal was not certified in accordance with 35 Ill. Adm. Code 702.126. A completed LPC-PA18 form (copy attached) must accompany all submittals to ensure this requirement is met.

This action shall constitute Illinois EPA's final action on the subject submittal. Within 35 days after the date of mailing of Illinois EPA's final decision, the applicant may petition for a hearing before the Illinois Pollution Control Board to contest the decision of Illinois EPA, however, the 35-day period for petitioning for a hearing may be extended for a period of time not to exceed 90 days by written notice provided to the Board from the applicant and the Illinois EPA within the 35-day initial appeal period.

Work required by this letter, your submittal(s) or the regulations may also be subject to other laws governing professional services, such as the Illinois Professional Land Surveyor Act of 1989, the Professional Engineering Practice Act of 1989, the Professional Geologist Licensing Act, and the Structural Engineering Licensing Act of 1989. This letter does not relieve anyone

from compliance with these laws and the regulations adopted pursuant to these laws. All work that falls within the scope and definitions of these laws must be performed in compliance with them. The Illinois EPA may refer any discovered violation of these laws to the appropriate regulating authority.

Should you have any questions regarding this matter, please contact Karen Nachtwey (217) 524-3273.

Sincerely,

Joyce L. Munie, P.E.
Manager, Permit Section
Bureau of Land

JLM:KEN:032662s.doc

Attachments: LPC PA-18

cc: Techalloy - Scott Carr- Environmental Coordinator
Matrix Environmental, Inc. - Carlos Serna
USEPA Region V - Alan Wojtas

A41

WESTON®
MANAGERS DESIGNERS/CONSULTANTS

Roy F. Weston, Inc.
Suite 400
3 Hawthorn Parkway
Vernon Hills, Illinois 60061-1450
847-918-4000 • Fax 847-918-4055

15 May 1998

Mr. Kevin Lesko
Illinois Environmental Protection Agency
1021 N. Grand Avenue East
Springfield, Illinois 62702

Work Order No. 01989-031-001

Re: Closure Documentation Report for three HWMUs at Techalloy Company in Union, Illinois

Dear Mr. Lesko:

Roy F. Weston (WESTON) is providing the Illinois Environmental Protection Agency (IEPA) with a "draft" Closure Documentation Report for three Hazardous Waste Management Units (HWMU) at Techalloy facility in Union, Illinois. This document presents the details of the RCRA Closure activities conducted in accordance with the IEPA approved RCRA Closure Plan. The HWMUs include the acid treatment unit, acid pits, and the cyanide destruction tanker unit.

Following your review and comments, WESTON will incorporate any changes and submit to IEPA, a final copy of the Closure Documentation Report with Closure Certification.

If you have any questions or require additional information, please do not hesitate to contact me at (847) 918-4002.

Very truly yours,

ROY F. WESTON, INC.

for CJS

Carlos J. Serna, P.G.
Senior Project Manager

CJS:ja

cc: William Buller, U.S. EPA (without enclosure)
Henry Lopes, Techalloy (without enclosure)
David Williams, Techalloy (without enclosure)
Scott Carr, Techalloy (without enclosure)

C:\AHMEDJ\TECHALLOY \IEPACVR.\.LTR

State of Illinois
ENVIRONMENTAL PROTECTION AGENCY

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217/524-3300

RECEIVED
JAN 29 1996
DIVISION FRONT OFFICE
Waste, Pesticides & Toxics Division
U.S. EPA - REGION 5

January 27, 1997

CERTIFIED MAIL
Z 363 621 141

United States Environmental Protection Agency
Region V
Lorna Jereza, Chief
Enforcement and Compliance Assurance Branch, (DRE-8J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Re: 1110900003 -- McHenry County
Techalloy, Inc./Union
ILD005178975
RCRA Closure

Dear Ms. Jereza:

This letter is in response to your letter, dated December 12, 1996 and received December 19, 1996. The Illinois Environmental Protection Agency (IEPA) intends to continue to provide the United States Environmental Protection Agency (U.S. EPA) comments regarding the ongoing corrective action being performed pursuant to a U.S. EPA Consent Order at the above referenced facility. The IEPA will make every effort to provide U.S. EPA with comments within forty-five (45) days of receipt of a submittal. However, due to the IEPA's limited resources it may not always be possible to provide comments within the forty-five (45) day time frame. At a minimum the IEPA will notify U.S. EPA within forty-five (45) days as to whether the IEPA intends to provide comments to U.S. EPA on a given submittal.

Should you have any questions regarding this matter, please contact Kevin D. Lesko at 217/524-3271.

Sincerely,

Edwin C. Bakowski, P.E.
Manager, Permit Section
Bureau of Land

ECB:KL:bjh\973426.WPD
JK

12/12/96 ORS to RCRA file

DEC 11 1996

Mr. Jerry Kuhn
RCRA Unit DRE-8J
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, Illinois 72794-9276

Re: Techalloy Company Inc.
Union, Illinois
ILD 005 178 975

Dear Mr. Kuhn:

As you are aware Techalloy Company Inc. is performing corrective action at their facility in Union, Illinois under a United States Environmental Protection Agency (U.S. EPA) Consent Order. Though this site was not transferred to the Illinois Environmental Protection Agency (IEPA) as a "disinvestment" corrective action facility, critical decisions pertaining to remedial action in which your Agency will likely want to participate are expected in the coming months.

Techalloy has completed the RCRA Facility Investigation (RFI) and recently submitted a draft Corrective Measures Study (CMS) Workplan. The draft CMS Workplan proposes to use U.S. EPA guidance documents and "IEPA Tiered Approach to Cleanup Objectives" for developing target cleanup levels. The CMS Workplan further proposes to develop the target cleanup levels based on an industrial land use projection. To provide a better basis for evaluation of the land use projection, U.S. EPA has requested Techalloy to submit additional land use information pursuant to U.S.EPA directive 9355.7-04, "Land Use in the CERCLA Remedy Selection Process". It is anticipated that this information will be submitted to U.S. EPA and IEPA in December, 1996. It is our understanding that your Agency has received copies of all Techalloy submittals and should so in the future.

It is U.S. EPA's intent to work in cooperation with IEPA so as to develop remedial action criteria that are satisfactory to both Agencies. To expedite the corrective action process, it is our goal to provide responses to Techalloy's future submittals within sixty days of receipt of their submittals. Would you please advise me within thirty (30) days of receipt of this letter, of IEPA's anticipated degree and nature of participation on this corrective action site?

If you wish to discuss this matter further please call me at (312) 353-5510, or if you have specific questions concerning the Techalloy facility, please call Bill Buller of the MI/WI section at (312) 886-4568.

Sincerely,

Lorna Jereza, Chief
Enforcement and Compliance assurance Branch
Waste Pesticides and Toxics division
IL/IN Section

bcc: Paul Little, ECAB
J. Kline, ORC
Gerald Phillips

D.3.1

MAR 20 1998

DE-9J

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Henry Lopes
Techalloy Company, Inc.
370 Franklin Turnpike
Mahwah, New Jersey 07430

Mr. Carlos Serna
Roy F. Weston, Inc.
Suite 400
3 Hawthorne Parkway
Vernon Hills, Illinois 60061-1450

Re: Techalloy Company, Inc., Union, Illinois
Groundwater Recovery System Upgrade
Administrative Order on Consent
Docket No. V-W-07-93
ILD 005 178 975

Dear Mr. Lopes and Mr. Serna:

As I advised you in our recent telephone conversation, the Illinois Environmental Protection Agency (IEPA) requires more specific information pertaining to closure of the solid waste management units at the Techalloy facility. For further clarification on the closure information required, please call Kevin Lesko of IEPA. The appropriate information should be submitted to IEPA, with a copy to me, within twenty (20) days of receipt of this letter.

If you have any questions please call me at (312) 886-4568.

Sincerely,

William Buller, Project Coordinator
Enforcement and Compliance Assurance Branch
Waste, Pesticides and Toxics Division
MI/WI Section

cc: Kevin Lesko, IEPA

bcc: Nedhi O'Meara, ORC

ENFORCEMENT AND COMPLIANCE ASSURANCE BRANCH

SECRETARY	SECRETARY	SECRETARY	SECRETARY	SECRETARY	SECRETARY
AUTHOR/ TYPIST	MINN/OHIO SECTION CHIEF	MICHIGAN/ WISCONSIN SECTION CHIEF	ILLINOIS/ INDIANA SECTION CHIEF	ECAB BRANCH CHIEF	WPTD DIVISION DIRECTOR
MP 3/20/98					

State of Illinois
ENVIRONMENTAL PROTECTION AGENCY

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217/524-3300

May 17, 1994

RECEIVED
MAY 19 1994
OFFICE OF RCRA
WASTE MANAGEMENT DIVISION
EPA, REGION V

Mr. Bill Buller
United States Environmental Protection Agency
Region V
RCRA Enforcement Branch, (HRE-8J)
77 West Jackson Boulevard
Chicago, IL 60604

RE: 1110900003 -- McHenry County
Techalloy, Inc./Union
ILD005178975
RCRA Closure

Dear Mr. Buller:

The Illinois Environmental Protection Agency (IEPA) would like to provide the following comments on the RCRA Facility Investigation Workplan and Quality Assurance Project Plan (QAAP). Revisions to the workplan were required by USEPA's February 8, 1994 letter. The revisions, dated March 23, 1994 and received by the IEPA on April 6, 1994, were submitted by Roy F. Weston, Inc. on behalf of Techalloy (TA).

1. Tables 2-8, and 2-9 of the QAAP, page 2-34 and 2-39: The tables refer to on-site (Class II) and off-site (Class I) objectives based upon 35 IAC Part 620 standards. The 35 IAC Part 620 standards were established after the initial cleanup standards were established in 1990. The current standards based Part 620 do not allow for Class II standards to be used on-site and Class I standards off-site. The Class I and II standards established under Part 620 are different from the Class I and II standards previously established by the IEPA. The only groundwater standard that currently applies to this site are the Class I standards.

2. Tables 2-12.1 through 2-12.3 of the QAAP, pages 2-42.1 through 2-42.3, refer to "action levels" which were apparently agreed to at a March 23, 1993 pre-QAPP meeting. How is the term "action levels" defined and what are the values?

Printed on Recycled Paper

3. Page 2-44.1 of the QAAP: The statement that the primary constituents transported through groundwater are VOCs is not appropriate at this time. The inorganic salts (i.e., ammonia, chlorides, sulfate, sodium and potassium) have not been fully investigated.

4. Page 2-45 of the QAAP: The last paragraph of the page indicates that the community water supply wells that are not presently being used are not potential receptors. If the wells have not been properly abandoned (sealed), the wells are potential receptors. There are no restrictions to the future use of these wells if they have not been sealed.

5. Page 2-46 of the QAAP: The statement that the constituents found at Union's Municipal Well #3 are not representative of Techalloy's plume constituents (i.e., VOCs) is not appropriate at this time. The inorganic salts (i.e., ammonia, chlorides, sulfate, sodium and potassium) have not been fully investigated.

6. USEPA's comment on Section 2.0 of the Workplan, page 2-47, indicates that the sentence pertaining to Southern California Chemical (SCC) should be deleted. Page 2-46 of the QAAP contains a reference SCC that is identical to the one that was removed from page 2-47 of the Workplan. The references to Southern California Chemical as the major contributor to the inorganic contamination evidenced at Union's Municipal Well #3 should be deleted unless it can be substantiated with documentation or references.

7. Page 2-48.1 of the QAAP, last paragraph, states, "the groundwater pathway will also be assessed at each SWMU location for the presence of VOCs, metals, other inorganics, and total suspended solids." Page 2-49 states that the background groundwater sampling locations will <u>not</u> be tested for other inorganic parameters as identified in Table 12.3. To properly assess the impact that the site has had on the groundwater all of the background sampling wells should also be analyzed for the "other inorganic parameters."

8. Page 2-47 of the Workplan: The statement that the plume emanating from Techalloy consists primarily of VOCs is not appropriate at this time. The inorganics (i.e., ammonia, chlorides, sulfate, sodium and potassium) identified at Union's Municipal Well #3 have not been adequately characterized in and around Techalloy's facility.

9. In response to USEPA's comments on Section 3.1b of the Field Sampling Plan (FSP), regarding the use of sampling procedures to minimize the exposure of soil samples to air, TA indicates that no suggestions are given to do this and that the samples will be taken from the split-spoon sampler as the spoon is open. The IEPA has developed a procedure for the collection of VOC soil samples to minimize the exposure to air and subsequent loss of VOCs from soil samples. See Attachment 1.

Should you have any questions regarding this matter, please contact Kevin D. Lesko at 217/524-3271.

Sincerely,

Douglas W. Clay, P.E.
Hazardous Waste Branch Manager
Permit Section, Bureau of Land

DWC:KL:\te\3008(h)\rfi-5-94.use

Attachment: Soil Volatile Sampling Procedure

Soil Volatile Sampling Procedures

A. PREPARATION AND DECONTAMINATION OF SOIL SAMPLER (i.e. STAINLESS STEEL, BRASS, BRONZE, COPPER, etc.). An example of these samplers would be a shelby tube, split-barrel sampler with metal tube inserts or california sampler. These are only examples. There may be more types available. Also, the sample tube **must** be at least six inches long.

* 1. Wash tubing or sampler with hot water and a nonfoaming detergent.

2. Rinse with hot water.

* 3. Rinse with a solvent, such as hexane or acetone.

4. Rinse with very hot water to drive off solvent.

5. Rinse with deionized distilled water.

6. Air Dry

7. Store the sampler in aluminum foil until ready for use.

* Consult the laboratory for specific recommendations.

B. SOIL SAMPLING FOR VOLATILE ORGANICS

1. Using a properly decontaminated sampler (refer to preparation and decontamination instructions), push or drive the sampler to obtain a representative soil sample.

2. **DO NOT** remove sample from sample tube in the field. The laboratory should remove the sample from the sampling tube.

3. Immediately add clay or other cohesive material (i.e. wetted bentonite) to the ends of the sample to eliminate head space, if necessary.

4. Cover both ends of the sampler with aluminum foil. If possible, cover the aluminum foil with a cap.

5. Put the sample in storage at 4 degrees centigrade immediately.

6. Transport the samples to the laboratory as soon as possible. Most laboratories require delivery within 24 hours of sampling.

NOTE: Soil samples which will be tested for volatile organic constituents <u>cannot</u> be composited because of the volatilization which would result from any compositing method.

State of Illinois
ENVIRONMENTAL PROTECTION AGENCY

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217/524-3300

January 18, 1994

RECEIVED
JAN 2 0 19
OFFICE OF RCR
WASTE MANAGEMENT
EPA, REG

Mr. Bill Buller
United States Environmental Protection Agency
Region V
RCRA Enforcement Branch, (HRE-8J)
77 West Jackson Boulevard
Chicago, IL 60604

RE: 1110900003 -- McHenry County
Techalloy, Inc./Union
ILD005178975
RCRA Closure

Dear Mr. Buller:

The Illinois Environmental Protection Agency (IEPA) would like to provide the following comments on the RCRA Facility Investigation Draft Work Plan. This work plan was required by the Administrative Order of Consent issued to Techalloy (TA) by USEPA, and submitted by Weston on behalf of TA. The work plan was dated April, 1993 and received by the IEPA on April 27, 1993.

1. In Section 2.5.1 of the work plan TA indicates that a soil sample (SB-05) was taken from the Spent Acid Holding Pond and analyzed for inorganics (specific inorganics not identified), TPH, and metals. TA states that the laboratory results indicates that the soil concentrations of metals and inorganics appear to be of little concern. The analytical results for this sample could not be located. The inorganic analytical constituents are not identified, nor is the basis for the comment that the concentrations of metals and inorganics are not of concern. **TA has not provided any justification regarding the demonstration that the parameters in question are of little concern.**

2. In Section 2.5.3 TA indicates that, "The constituents are inconsistent because inorganics were observed at the well [Union Well No.3], while the plume emanating from Techalloy consist of VOCs." The IEPA is not aware of the collection of any groundwater data in the area of the TA facility to demonstrate that an inorganic plume is not emanating from the facility. **To date the IEPA has not been provided with any data on inorganics in the groundwater at the TA facility.**

3. Section 5.2.1 Indicates that the soil and groundwater samples to be collected will be analyzed for those constituents potentially associated with the SWMU being

Printed on Recycled Paper

ATTACHMENT 1

CERTIFICATION REGARDING POTENTIAL RELEASES FROM SOLID WASTE MANAGEMENT UNITS

FACILITY NAME: Techalloy Illinois, Inc.

EPA I.D. NUMBER: ILD005178975

LOCATION CITY: Olsen and Jefferson Roads, Union

STATE: Illinois

1. Are there any of the following solid waste management units (existing or closed) at your facility? NOTE - DO NOT INCLUDE HAZARDOUS WASTE UNITS CURRENTLY SHOWN IN YOUR PART A APPLICATION

	YES	NO
• Landfill		X
• Surface Impoundment		X
• Land Farm		X
• Waste Pile		X
• Incinerator		X
• Storage Tank (Above Ground)		X
• Storage Tank (Underground)		X
• Container Storage Area	X	
• Injection Wells		X
• Wastewater Treatment Units		X
• Transfer Stations		X
• Waste Recycling Operations		X
• Waste Treatment, Detoxification	X	
• Other _____		

2. If there are "Yes" answers to any of the items in Number 1 above, please provide a description of the wastes that were stored, treated or disposed of in each unit. In particular, please focus on whether or not the wastes would be considered as hazardous wastes or hazardous constituents under RCRA. Also include any available data on quantities or volume of wastes disposed of and the dates of disposal. Please also provide a description of each unit and include capacity, dimensions and location at facility. Provide a site plan if available.

(See attached sheet.)

NOTE: Hazardous wastes are those identified in 40 CFR 261. Hazardous constituents are those listed in Appendix VIII of 40 CFR Part 261.

Law Offices of
Donovan Leisure Newton & Irvine
30 Rockefeller Plaza
New York, N.Y. 10112

TELEPHONE: 212-632-3000
FACSIMILE: 212-632-3321

DONOVAN LEISURE, ROGOVIN, HUGE & SCHILLER
1250 TWENTY-FOURTH STREET, N.W.
WASHINGTON, D.C. 20037-1124
TELEPHONE: 202-467-8300
FAX 202-467-8484

DONOVAN LEISURE NEWTON & IRVINE
333 SOUTH GRAND AVENUE
LOS ANGELES, CALIFORNIA 90071
TELEPHONE 213-253-4000
FAX: 213-617-2368

DONOVAN LEISURE NEWTON & IRVINE
130 RUE DU FAUBOURG SAINT-HONORÉ
75008 PARIS
TELEPHONE: 1-42-25-47-10
FAX: 1-42-56-08-06

WRITER'S DIRECT DIAL NUMBER
212-632 -3161

December 2, 1991

Ms. Jacqueline Kline
Office of Regional Counsel
United States Environmental
Protection Agency - Region 5
77 Jackson
Metcalf Bldg.
Chicago, Illinois 60610

RE: Techalloy Company, Inc.
ILD005 178 975

Dear Ms. Kline:

This letter will reflect that we had a discussion on Wednesday, November 27, 1991, with regard to the letter, dated on or about November 18, 1991, sent by Joseph Boyle, Chief, RCRA Enforcement Branch, Region 5 of the United States Environmental Protection Agency ("EPA") to Henry Lopes of Techalloy.

My understanding is that this letter constitutes an initial response by Techalloy within fifteen (15) days of the receipt of the letter from Mr. Boyle to Techalloy, as required, and reflects that after making inquiries, you will contact me concerning the future course of action to be taken by EPA.

As I mentioned to you on the telephone, it is Techalloy's desire to continue to work cooperatively with the Illinois Environmental Protection Agency, under a voluntary clean up program to clean up the groundwater in the vicinity of the Union plant.

Thank you very much for your cooperation.

Very truly yours,

James J. Periconi

James J. Periconi

cc: Mr. Joseph M. Boyle

USEPA

Illinois Environmental Protection Agency · P.O. Box 19276, Springfield, IL 62794-9276

217/782-6762

Log No. C-548-M-2
Received: July 31, 1991 and
August 1, 1991

Refer to: 1110900003 -- McHenry County
Techalloy
ILD005178975
RCRA Closure

October 7, 1991

Techalloy, Inc.
Attn: Mr. George Miller
Post Office Box 423
Union, Illinois 60180-0423

Dear Mr. Miller:

The closure plan modification request for the hazardous waste tank (T01) (the acid treatment unit) and container (T04) treatment area (the cyanide destruct unit), and tank (S02) storage areas (the acid pits) submitted by Techalloy and prepared by Weston, Inc. has been reviewed by this Agency. The closure plan modification is hereby approved subject to the following conditions and modifications.

1. Closure activities must be completed by April 15, 1992. When closure is complete the owner or operator must submit to the Agency certification both by the owner or operator and by an independent registered professional engineer that the facility has been closed in accordance with the specifications in the approved closure plan. This certification must be received at this Agency within sixty (60) days after closure, or by June 15, 1992. These dates may be revised pending review of the submittal required by Condition 4 below.

   The attached closure certification form (Attachment 1) must be used. Signatures must meet the requirements of 35 Illinois Administrative Code (IAC) Section 702.126. The independent engineer should be present at all critical, major points (activities) during the closure. These might include soil sampling, soil removal, backfilling, final cover placement, etc. The frequency of inspections by the independent engineer must be sufficient to determine the adequacy of each critical activity. Financial assurance must be maintained for the units approved for closure herein until the Agency approves the facility's closure certification.

   The Illinois Professional Engineering Act (Ill. Rev. Stat., Ch. 111, par. 5101 et. seq.) requires that any person who practices professional engineering in the State of Illinois or

Printed on Recycled Paper

implies that he (she) is a professional engineer must be registered under the Illinois Professional Engineering Act (par. 5101, Sec. 1). Therefore, any certification or engineering services which are performed for a closure plan in the State of Illinois must be done by an Illinois P.E. Plans and specifications, designs, drawings, reports, and other documents rendered as professional engineering services, and revisions of the above must be sealed and signed by a professional engineer in accordance with par. 5119, sec. 13.1 of the Illinois Professional Engineering Act.

As part of the closure certification, to document the closure activities at your facility, please submit a Closure Documentation Report which includes:

a. The volume of waste and waste residue removed. The term waste includes wastes resulting from decontamination activities.

b. A description of the method of waste handling and transport.

c. The waste manifest numbers.

d. Copies of the waste manifests.

e. A description of the sampling and analytical methods used including sample preservation methods and chain-of-custody information.

f. A chronological summary of closure activities and the cost involved.

g. Color photo documentation of closure. Document conditions before, during and after closure.

h. Tests performed, methods and results.

The original and two (2) copies of all certifications, logs, or reports which are required to be submitted to the Agency by the facility should be mailed to the following address:

Illinois Environmental Protection Agency
Division of Land Pollution Control -- #24
Permit Section
2200 Churchill Road
Post Office Box 19276
Springfield, Illinois 62794-9276

2. If the Agency determines that implementation of this closure plan fails to satisfy the requirements of 35 IAC 725.211, the Agency reserves the right to amend the closure plan.

Revisions of the closure plan are subject to the provisions of Section 40 of the Illinois Environmental Protection Act.

3. The Agency has reviewed the soil sampling data related to the units under going RCRA closure and has established cleanup objectives which must be met to achieve clean closure for these units. These objectives are set forth in Attachment 2 of this document. It should be noted that the objective for copper is based on the Toxicity Characteristic Leaching Procedure (TCLP) levels and not total levels which were required by the Agency's June 28, 1991 approval letter. A cleanup objective has also been established for nickel. The requirement for laboratory analysis for this parameter was inadvertently left out of the Agency's June 28, 1991 approval letter. Nickel and copper shall be included when performing the laboratory analyses required below in Conditions 4 and 5.

4. Techalloy shall submit a report, by January 15, 1992, which defines the vertical and lateral extent of the soil contamination related to the RCRA units. Enough data should be collected during this investigation to design any system(s) that may be used to remediate or monitor the areas undergoing closure. This report and any subsequent reports of investigation shall include, at a minimum, the following information:

   - copies of the analytical reports from the laboratory
   - a summary of the analytical data
   - the test methods used and detection limits achieved
   - the depth and interval of the samples taken
   - field classification of each soil according to ASTM Method D-2488
   - a description of the sampling procedures and sample preservation/chain of custody methods
   - a description of any field screening techniques used, including a discussion of the limitations of the techniques used
   - a scale drawing showing the location of the samples obtained.
   - a discussion of the results
   - color photos documenting the work performed at the site.

   If Techalloy wishes, they may submit a plan for Agency review

and approval that identifies the procedures that will be used to determine the extent of the soil contamination. If this plan is to be submitted for Agency approval, it shall be submitted by November 15, 1991.

5. Samples which will be utilized to demarcate clean areas (i.e. areas meeting the cleanup objectives) from contaminated areas as required by Condition 4 above shall be analyzed for the compounds specified in Attachment 2. These samples shall be analyzed individually (i.e., no compositing). Sampling and analytical procedures shall be conducted in accordance with the latest edition of SW-846 and Attachment 3 of this document. If unknown compounds are detected during the laboratory analysis, attempts should be made to identify those compounds. At a minimum, the presence of the unknown compound shall be noted in the analytical report. When visually discolored or contaminated material exists within an area to be sampled, horizontal placement of sampling locations shall be adjusted to include such visually discolored and/or contaminated areas. Sample size per interval shall be minimized to prevent dilution of any contamination. Apparent visually contaminated material within a sampling interval shall be included in the sample portion of the interval to be analyzed.

6. A modified closure plan addressing remediation of any contamination above the cleanup objectives discovered during the investigation required by Condition 4 above shall be submitted for Agency review within timeframes established by the Agency. This modification shall include, at a minimum, revised financial assurance documents, if necessary, a description of the procedures which will be carried out to remediate the contamination, and a compliance schedule for the remediation of the contamination.

7. Under the provisions of 29 CFR 1910 (51 FR 15,654, December 19, 1986), cleanup operations must meet the applicable requirements of OSHA's Hazardous Waste Operations and Emergency Response standard. These requirements include hazard communication, medical surveillance, health and safety programs, air monitoring, decontamination and training. General site workers engaged in activities that expose or potentially expose them to hazardous substances must receive a minimum of 40 hours of safety and health training off site plus a minimum of three days of actual field experience under the direct supervision of a trained experienced supervisor. Managers and supervisors at the cleanup site must have at least an additional eight hours of specialized training on managing hazardous waste operations.

8. The Notification of Hazardous Waste Activity form submitted in response to Condition 4 of the Agency's February 28, 1991

approval letter is not adequate. The form does not have the required date of the signature. Submit a revised form by November 15, 1991.

9. The tanks and the associated secondary containment systems (if any) and the concrete surfaces of the units shall be visually inspected, photographed and any residue adhering to the surface must be removed by scraping and/or brushing. Following this, the surfaces and the tanks' associated piping and equipment must be steam cleaned and triple rinsed. All wash and rinse water shall be collected. If analysis of the wash or rinse water samples from the hazardous waste tank (T01) (the acid treatment unit) and/or the container (T04) treatment area and/or the tank (S02) storage areas (the acid pits) detect the presence of K062 constituents above the constituent's PQL identified in SW-846 (Third Edition), then that material must be managed as a hazardous waste. If analysis of the wash or rinse water samples from the container (T04) treatment area (the cyanide destruct unit) detect the presence of F009 constituents above the constituent's PQL identified in SW-846 (Third Edition), then that material must be managed as a hazardous waste. If the wash or rinse water samples exhibit a characteristic of hazardous waste then that material must be managed as a hazardous waste. In any event the material must be managed as a special waste. If, after cleaning the concrete surfaces any cracks, joints or other defects are found that would allow waste to migrate through the concrete surfaces to the underlying soil, a closure plan modification request addressing soil sampling at those locations must be submitted to this Agency within sixty (60) days of such a finding.

10. The following information was not submitted along with the analytical data received July 3, 1991 as was required in Condition 8 of the Agency's June 28, 1991 approval letter:

    - The test methods used and detection limits achieved

    - The depth and interval of samples taken

    - A description of the soil sampling procedures and sample preservation/chain of custody methods

    - A scale drawing showing the location of the units, their associated piping and equipment, and the location of the samples obtained.

    This information must be submitted to the Agency by November 15, 1991. In addition, provide the following information:

    - Explain why some samples where not obtained from the locations specified in the Agency's June 28, 1991 approval

letter. For example, only one sample appears to have been obtained from each sampling location, TAH-1 thorough TAH-7. The depth of these samples are not identified. Condition 6 of the Agency's June 28, 1991 approval letter, would appear to require two samples from each of these locations, one from 0 to 6 inches as measured from the soil/backfill interface and another from a depth of one (1) to two (2) feet deeper than the bottom invert of the pit. Explain why samples were not obtained from both depths at these locations.

- According to Condition 6c of the Agency's June 28, 1991 approval letter, "Samples from the soil sample location to the north and the soil sample location to the south of the unit [the cyanide destruct unit] shall be analyzed for the parameters specified below in Condition 7. Samples from the nine remaining locations around the unit shall analyzed for cyanide only.". Condition 7 required that samples be analyzed for volatile organics along with other inorganic parameters. No data has been provided which would indicate that volatile organic soil analyses were performed on any of the samples collected from around the unit. It appears that only inorganic parameters were run on samples TC-1-24 and TC-11-24 and not the other samples obtained from these locations as was required by Condition 6. Explain why the requirements of this condition were not met.

11. The Agency has reviewed the Certification Regarding Potential Releases from Solid Waste Management Units (SWMU Certification) and has the following comments:

    - The certification references locations A, B, E, M, N, P, Q, and R on the "site map", however Figures 1, 1-3, 2-2, or 3-4 do not identify these locations. Provide a facility drawing which identifies the locations of the SWMUs.

    - The previously submitted SWMU Certification identified an additional SWMU that was not included in this certification. This SWMU is described as a copper coating process in which wire was first washed in a bath of nickel sulfate, then rinsed over an inground tank. The wire is then dipped into a cyanide bath, and rinsed over the same inground tank. Until 1978, the liquid from the inground tank was discharged onto the ground behind the facility. This SWMU must be included in the SWMU Certification.

    - No laboratory reports were provided for the SP, SS, WS, and TW series of samples. Laboratory reports for the SS series of samples were only provided for the inorganic parameters and not for the volatile organic compounds for which the samples were analyzed. Provide copies of the laboratory reports for these samples.

- Identify the depth at which the SB series of samples were obtained from.

- Provide copies of the laboratory reports from the most recent groundwater sampling event.

- Provide a description of the soil sampling procedures and sample preservation/chain of custody methods used when collecting the soil and groundwater samples identified in the SWMU Certification.

- Identify which samples were collected 1) prior to the sale of the facility, and 2) to determine the extent of the groundwater contamination and the potential sources of the contamination. The SWMU Certification must be prepared as stand alone document, referencing other documents is not acceptable. Copies of the analytical data submitted in the closure plan documents should be include in the certification if they are referenced in the certification.

- Identify the locations of City Wells 1, 2, and 4 on at one of the scaled figures in the certification.

Submit to the Agency a revised SWMU Certification or addenda to the present certification which addresses the above comments must be submitted to the Agency by November 15, 1991.

12. In response to Condition 9 of the Agency's June 28, 1991 approval letter Techalloy has identified the source of the groundwater contamination as an area off the edge of a concrete pad where stainless steel rod was degreased using trichloroethane in the 1970s. This area appears to be located east of the Acid House. Figure 3-1, samples SS-2, SS-3, and SS-4 show low levels (0.2 to 22 ppb) of 1,1,1-trichloroethane (TCA) Figure 1, sample SP-1 shows TCA at 2100 ppb. It appears that their may be another source for the VOC contamination near sample SP-01 (see Figure 1). Figure 3-4 which attempts to identify the extent of the groundwater plume also suggest that there may be another contributing source to the groundwater contamination southwest of the plant area. Has any additional investigation been done in this area to determine what the source of the TCA at sample point SP-01 is? Information regarding any additional investigation conducted around sample point SP-01 must be provided to the Agency by November 15, 1991.

13. If clean closure cannot be achieved pursuant to 35 IAC 725.211, 725.214 and/or 725.297a, then a modified closure plan and a post-closure plan prepared pursuant to 35 IAC Section 725.297b and 35 IAC 725 Subpart H must be submitted to the Agency for review and approval within 60 days of such a determination.

14. Please be advised that the RCRA Corrective Action requirements (Section 3008(h)) apply to the Solid Waste Management Units (SWMUs) at this facility. 3008(h) provides for the remediation of contamination caused by releases from SWMUs at interim status facilities.

15. To avoid creating another regulated storage unit during closure, it is recommended that you obtain any necessary permits for waste disposal prior to initiating excavation activities. If it is necessary to store excavated hazardous waste on-site prior to off-site disposal, do so only in containers or tanks for less than ninety (90) days. Do not create regulated waste pile units by storing the excavated hazardous waste in piles. The ninety (90) day accumulation time exemption (35 IAC 722.134) only applies to containers and tanks.

16. Please be advised that the requirements of the Responsible Property Transfer Act (Public Act 85-1228) may apply to your facility due to the management of RCRA hazardous waste. In addition, please be advised that if you store or treat on-site generated hazardous waste in containers or tanks pursuant to 35 IAC 722.134, those units are subject to the closure requirements identified in 35 IAC 722.134(a)(1).

17. All hazardous wastes that result from this project are subject to annual reporting as required in 35 IAC 722.141 and shall be reported to the Agency by March 1 of the following year for wastes treated and left on-site or shipped off-site for storage, treatment and/or disposal during any calendar year. Additional information and appropriate report forms may be obtained from the Agency by contacting:

    Administrative Compliance Unit
    Division of Land Pollution Control
    Illinois Environmental Protection Agency
    P.O. Box 19276
    Springfield, Illinois 62794-9276

Should you have any questions regarding this matter, please contact Kevin D. Lesko at 217/782-6762.

Very truly yours,

Lawrence W Eastep BJCAZ

Lawrence W. Eastep, P.E., Manager
Permit Section
Division of Land Pollution Control

LWE:KDL

Attachments:

1. Closure Plan Certification Form
2. Cleanup Objectives
3. Soil Volatile Sampling Procedure

cc: Maywood Region
Division File - RCRA Closure
USEPA Region V -- George Hamper
Division of Legal Counsel
RPMS -- Brain Martin
RPMS -- Jim Janssen
Stan Black
McHenry County Health Department -- Patrick McNulty
Illinois Attorney General's Office -- Jack Bailey
Union Village President -- Ron Miller
Roy F. Weston, Inc. -- John Thorson

Illinois Environmental Protection Agency · P.O. Box 19276, Springfield, IL 62794-9276

ATTACHMENT 1

This statement is to be completed by both the responsible officer and by the registered professional engineer upon completion of closure. Submit one copy of the certification with original signatures and three additional copies.

Closure Certification Statement

Closure Log C-548-M-2

The hazardous waste management tank treatment (T01), container treatment (T04), and tank storage (S02) units at the facility described in this document have been closed in accordance with the specifications in the approved closure plan. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

USEPA ID Number	Facility Name
Signature of Owner/Operator	Name and Title
Signature of Registered P.E.	Name of Registered and Illinois Registration Number
Date	

KDL

Printed on Recycled Paper

ATTACHMENT 2
Page 1 of 2

Cleanup Objectives for Techalloy, Inc. October 7, 1991

Closure Log # C-548-M-2

Parameter	Soil Objective (mg/kg)	Groundwater Objective (mg/l)
Nitrate	NA	10.0
Sulfate	NA	400
Cyanide	0.2 *	0.2
Copper	0.065 **	0.65
Barium	2.0 **	2.0
Cadmium	0.005 **	0.005
Chromium	0.1 **	0.1
Lead	0.0075 **	0.0075
Mercury	0.002 **	0.002
Selenium	0.05 **	0.05
Nickel	0.1 **	0.1
Methylene Chloride	0.005	0.005 and mixture 1
Acetone	0.7	0.7
2-Butanone	0.350	0.350
Benzene	0.005	0.005
Toluene	1.0	1.0
Ethylbenzene	0.7	0.7
Xylene (total)	10.0	10.0
1,1,1 Trichloroethane	0.2	0.2
1,1,2 Trichloroethane	0.005	0.005
Tetrachloroethylene	0.005	0.005 and mixture 1
Trichloroethylene	0.005	0.005 and mixture 1
1,1-Dichloroethylene	0.007	0.007 and mixture 2
1,1-Dichloroethane	0.7	0.7
1,2-Dichloroethane	0.005	0.005 and mixture 1
Vinyl Chloride	0.002	0.002 and mixture 1
cis 1,2-Dichloroethylene	0.07	0.07 and mixture 2
trans 1,2-Dichloroethylene	0.1	0.1 and mixture 2

* Soil objectives for cyanide is based on the Toxicity Characteristic Leaching Procedure (Method 1311 of SW-846), conducted at a neutral pH, with results in mg/l.

** Soil objectives for metals are based on the Toxicity Characteristic Leaching Procedure, with results in mg/l.

NA - A soil cleanup objective is not applicable to this parameter.

Printed on Recycled Paper

Mixture 1: In addition to meeting the individual Class I groundwater objectives indicated in the previous table, the following equation must be satisfied in order to protect against liver tumors.

$$\frac{[\text{1,2-Dichloroethane}]}{0.005\ \text{mg/l}} + \frac{[\text{Tetrachloroethylene}]}{0.005\ \text{mg/l}} + \frac{[\text{Trichloroethylene}]}{0.005\ \text{mg/l}} + \frac{[\text{Vinyl Chloride}]}{0.002\ \text{mg/l}} \leq 1.0$$

Mixture 2: In addition to meeting the individual Class I groundwater objectives indicated in the previous table, the following equation must be satisfied in order to protect against liver toxicity.

$$\frac{[\text{1,1-Dichloroethylene}]}{0.007\ \text{mg/l}} + \frac{[\text{cis 1,2-Dichloroethylene}]}{0.07\ \text{mg/l}} + \frac{[\text{trans 1,2-Dichloroethylene}]}{0.1\ \text{mg/l}} \leq 1.0$$

Printed on Recycled Paper

Illinois Environmental Protection Agency · P.O. Box 19276, Springfield, IL 62794-9276

ATTACHMENT 3

Soil Volatile Sampling Procedures

Procedure:

A. PREPARATION AND DECONTAMINATION OF SOIL SAMPLER (i.e. STAINLESS STEEL, BRASS, BRONZE, COPPER, etc.). An example of these samplers would be a shelby tube, split-barrel sampler with metal tube inserts or california sampler. These are only examples there maybe more types available. Also, the sample tube **must** be at least six inches long.

*1. Wash tubing or sampler with hot water and a nonfoaming detergent.

2. Rinse with hot water.

*3. Rinse with a solvent, such as hexane or acetone.

4. Rinse with very hot water to drive off solvent.

5. Rinse with deionized distilled water.

6. Air Dry

7. Store the sampler in aluminum foil until ready for use.

*Consult the laboratory for specific recommendations.

B. SOIL SAMPLING FOR VOLATILE ORGANICS

1. Using a properly decontaminated sampler (refer to preparation and decontamination instructions), push or drive the sampler to obtain a representative soil sample.

2. **DO NOT** remove sample from sample tube in the field. The laboratory should remove the sample from the sampling tube.

3. Immediately add clay or other cohesive material (i.e. wetted bentonite) to the ends of the sample to eliminate head space, if necessary.

4. Cover both ends of the sampler with aluminum foil. If possible, cover the aluminum foil with a cap.

5. Put the sample in storage at 4 degrees centigrade immediately.

6. Transport the samples to the laboratory as soon as possible. Most laboratories require delivery within 24 hours of sampling.

NOTE: Soil samples which will be tested for volatile organic constituents <u>cannot</u> be composited because of the volatilization which would result from any compositing method.

Printed on Recycled Paper

C548 P3673880 49 file

Illinois Environmental Protection Agency · P. O. Box 19276, Springfield, IL 62794-9276

217/782-6762

Log No. C-548
Received: December 10, 1990

Refer to: 1110900003 -- McHenry County
Techalloy
ILD005178975
RCRA Closure

February 8, 1991

Techalloy, Inc.
Attn: Mr. George Miller
P.O. Box 423
Union, Illinois 60180-0423

Dear Mr. Miller:

The closure plan modification for the hazardous waste tank (T01) and container (T04) treatment areas, and tank (S02) storage areas (i.e. the acid treatment unit, cyanide destruct unit, and acid pits) submitted by Techalloy and prepared by Weston, Inc. has been reviewed by this Agency. The closure plan modification is hereby approved subject to the following conditions and modifications.

1. Closure activities must be completed by August 15, 1991. When closure is complete the owner or operator must submit to the Agency certification both by the owner or operator and by an independent registered professional engineer that the facility has been closed in accordance with the specifications in the approved closure plan. This certification must be received at this Agency within sixty (60) days after closure, or by October 15, 1991.

   The attached closure certification form must be used. Signatures must meet the requirements of 35 Ill. Adm. Code Section 702.126. The independent engineer should be present at all critical, major points (activities) during the closure. These might include soil sampling, soil removal, backfilling, final cover placement, etc. The frequency of inspections by the independent engineer must be sufficient to determine the adequacy of each critical activity. Financial assurance must be maintained for the units approved for closure herein until the Agency approves the facility's closure certification.

   The Illinois Professional Engineering Act (Ill. Rev. Stat., Ch. 111, par. 5101 et. seq.) requires that any person who practices professional engineering in the State of Illinois or implies that he (she) is a professional engineer must be registered under the Illinois Professional Engineering Act (par. 5101, Sec. 1). Therefore, any certification or engineering services which are performed for a closure plan in the State of Illinois must be done by an Illinois P.E.

EXHIBIT NO _____

Plans and specifications, designs, drawings, reports, and other documents rendered as professional engineering services, and revisions of the above must be sealed and signed by a professional engineer in accordance with par. 5119, sec. 13.1 of the Illinois Professional Engineering Act.

As part of the closure certification, to document the closure activities at your facility, please submit a Closure Documentation Report which includes:

a. The volume of waste and waste residue removed. The term waste includes wastes resulting from decontamination activities.

b. A description of the method of waste handling and transport.

c. The waste manifest numbers.

d. Copies of the waste manifests.

e. A description of the sampling and analytical methods used including sample preservation methods and chain-of-custody information.

f. A chronological summary of closure activities and the cost involved.

g. Color photo documentation of closure. Document conditions before, during and after closure.

h. Tests performed, methods and results.

The original and two (2) copies of all certifications, logs, or reports which are required to be submitted to the Agency by the facility should be mailed to the following address:

Illinois Environmental Protection Agency
Division of Land Pollution Control -- #24
Permit Section
2200 Churchill Road
Post Office Box 19276
Springfield, Illinois 62794-9276

2. If the Agency determines that implementation of this closure plan fails to satisfy the requirements of 35 I.A.C. 725.211, the Agency reserves the right to amend the closure plan. Revisions of the closure plan are subject to the provisions of Section 40 of the Illinois Environmental Protection Act.

3. Under the provisions of 29 CFR 1910 (51 FR 15,654, December 19, 1986), cleanup operations must meet the applicable requirements of OSHA's Hazardous Waste Operations and Emergency Response standard. These requirements include hazard communication, medical surveillance, health and safety programs, air monitoring, decontamination and training. General site workers engaged in activities that expose or potentially expose them to hazardous substances must receive a minimum of 40 hours of safety and

health training off site plus a minimum of three days of actual field experience under the direct supervision of a trained experienced supervisor. Managers and supervisors at the cleanup site must have at least an additional eight hours of specialized training on managing hazardous waste operations.

4. Agency records indicate that (K062), spent pickle liquor, waste is generated, stored, and treated onsite. This includes waste generated in the acid rinse tanks, the acid pits and the treatment unit. The following is a list of waste that appears to have been incorrectly identified:

   - Wastewater from the acid pits, identified as (D002), appears to be (K062) waste. Even if it is demonstrated that the waste is not a listed waste, i.e. (K062), Appendix C of the closure plan indicates that it should also be identified as (D007) waste.

   - Wastewater treatment sludge from the clarifier of the acid treatment unit, identified as (F006), appears to be (K062) waste.

   Techalloy must properly identify the above waste as (K062), spent pickle liquor waste, unless it can be demonstrated, to the Agency's satisfaction, that the waste has been correctly identified in the closure plan. The Agency will take appropriate enforcement action if this demonstration is not made by March 15, 1991.

5. The tank and the concrete surfaces of the units shall be visually inspected, photographed and any residue adhering to the surface must be removed by scraping and/or brushing. Following this, the surfaces and the tanks' associated piping and equipment must be steam cleaned and triple rinsed. All wash and rinse water shall be collected. If analysis of the wash or rinse water samples detect the presence of K062 constituents above the constituent's PQL identified in SW- 846 (Third Edition), then that material must be managed as a hazardous waste. If the wash or rinse water samples exhibit a characteristic of hazardous waste then that material must be managed as a hazardous waste. In any event the material must be managed as a special waste. If, after cleaning the concrete surfaces, any cracks, joints or other defects are found that would allow waste to migrate through the concrete surfaces, to the underlying soil, a closure plan modification request addressing soil sampling at those locations must be submitted to this Agency within sixty (60) days of such a finding.

6. All soil samples shall be obtained from the 6 to 12 inch interval, and the 18 to 24 inch interval unless the samples will be obtained from beneath a concrete surface. In that case, the interval shall be 0 to 6 inches as measured from the soil/backfill interface. Soil samples shall be obtained from the following units as specified below:

   a. The Acid Treatment Unit

In addition to the locations identified in Figure 1-2 of the closure plan, soil samples shall be obtained immediately outside of and adjacent to the middle of each side of the inground tank used to collect liquids from the filter bags.

b. The Acid Pits

Samples shall be obtained as close as possible to the pit. Sample locations to the north of the pit shall begin at the northwest corner of the pit and shall proceed to its east end at intervals not exceeding 20 feet. Sample locations to the south of the pit shall be obtained as described above, except the first sample location shall be 10 feet east of the southwest corner of the pit. Samples shall also be obtained from as near as possible to the cracks in the pits that were identified in the Certification Regarding Potential Releases from Solid Waste Management Units (SWMU) (Appendix A of the closure plan).

In addition to the sampling intervals required above, a six (6) inch sample shall be obtained from a depth of one (1) to two (2) feet deeper than the bottom invert of the pit.

c. The Cyanide Destruct Unit

In addition to the locations identified in Figure 1-2 of the closure plan, four (4) soil sample locations shall be chosen to the west side of the container in a similar pattern as those to the east of the container.

7. All samples shall be analyzed individually (i.e., no compositing). Sampling and analytical procedures shall be conducted in accordance with the latest edition of SW-846 and Attachment 1 of this document. When visually discolored or contaminated material exists within an area to be sampled, horizontal placement of sampling locations shall be adjusted to include such visually discolored and/or contaminated areas. Sample size per interval shall be minimized to prevent dilution of any contamination. Apparent visually contaminated material within a sampling interval shall be included in the sample portion of the interval to be analyzed. To demonstrate a parameter is not present in a sample, analysis results must show a detection limit at least as low as the PQL for that parameter in the latest edition of SW-846. For inorganic parameters, the detection limit must be at least as low as the RCRA Groundwater Detection Limits, as referenced in SW-846 (Third Edition) Volume 1A, pages TWO-29 and TWO-30, Table 2- 15. If possible your sampling program should be extensive enough to determine the lateral and vertical extent of contamination to the detection limit (PQLs) referenced above. Samples shall be analyzed for the following parameters:

- pH
- Copper (total)
- Chloride (soluble)
- Sulfate (soluble)

- Cyanide
- Iron
- Barium*
- Cadmium*
- Chromium*
- Hexavalent Chromium*
- Lead*
- Mercury*
- Silver*
- Selenium*
- A complete Volatile Organic Scan (Method 8240 of the latest edition of SW-846)

* Toxicity Characteristic Leaching Procedure (TCLP)

8. The cleanup objectives proposed in the closure plan submittal are not approved. The Agency will establish cleanup objectives to be used to determine if "clean" closure (closure by removal) has been achieved upon receipt and review of the sampling and analytical results required in the approved closure plan. These sampling and analytical results along with a proposal for site-specific cleanup objectives (if you with to propose them) must be submitted to this Agency by May 15, 1991. Along with the analytical results, submit the following:

   - The test methods used and detection limits achieved
   - The depth and interval of samples taken
   - A description of the soil sampling procedures and sample preservation/chain of custody methods
   - A scale drawing showing the location of the units, their associated piping and equipment, and the location of the samples obtained.

9. The portion of the closure plan addressing removal of contaminated soil is not adequate. The results of the samples required in the approved closure plan shall be submitted for Agency review. At that time the Agency will establish cleanup objective, as described above in condition 8. If contamination is detected above the cleanup objectives, a revised closure plan addressing remediation of the contamination must be submitted within timeframes established by the Agency. This modification must clearly define how the contaminated soil will be removed, stored, treated (if applicable), loaded, and how it will be managed once it leaves the site (if applicable).

10. The Certification Regarding Potential Releases from Solid Waste Management Units (SWMU) must be modified to include all units not listed on the facility's Part A application, and areas which handle special waste. Any areas which now and/or have managed (i.e. store, treat or dispose) the following waste would appear to be SWMUs:

- Pickling rinse waters -- hazardous, presently stored in two tanks, 10,500 gallons and 16,500 gallons
- Plating filters -- hazardous, stored in a hopper
- ADS sludge -- hazardous, stored in drums
- Metal hydroxide sludge -- hazardous stored in a hopper
- SP-6 sludge -- special waste
- Waste oils -- special, stored in drums
- Molybdenum Disulfide process filters -- special waste

The revised certification shall be submitted to the Agency by March 15, 1991

11. Has Techalloy determined if any of the RCRA regulated units at the site contributed in any way to the groundwater contamination presently being investigated at the site? If you have, provide a discussion of such a determination along with the submittal of the revised Certification Regarding Potential Releases from Solid Waste Management Units. If such a determination has not been made, describe how and when it will be determined what caused, or is causing the contamination of the groundwater.

12. If clean closure cannot be achieved pursuant to 35 IAC 725.297a, then a modified closure plan and a post-closure plan prepared pursuant to 35 IAC Section 725.297b must be submitted to the Agency for review and approval within 60 days of such a determination.

13. Please be advised that the RCRA Corrective Action requirements (Section 3008(h)) apply to the Solid Waste Management Units (SWMUs) at this facility. 3008(h) provides for the remediation of contamination caused by releases from SWMUs at interim status facilities.

14. To avoid creating another regulated storage unit during closure, obtain any necessary permits for waste disposal prior to initiating excavation activities. If it is necessary to store excavated hazardous waste on-site prior to off-site disposal, do so only in containers or tanks for less than ninety (90) days. Do not create regulated waste pile units by storing the excavated hazardous waste in piles. The ninety (90) day accumulation time exemption (35 IAC 722.134) only applies to containers and tanks.

15. Please be advised that the requirements of the Responsible Property Transfer Act (Public Act 85-1228) may apply to your facility due to the management of RCRA hazardous waste. In addition, please be advised that if you store or treat on-site generated hazardous waste in containers or tanks pursuant to 35 IAC 722.134, those units are subject to the closure requirements identified in 35 IAC 722.134(a)(1).

16. All hazardous wastes that result from this project are subject to annual reporting as required in 35 IAC 722.141 and shall be reported to the Agency by March 1 of the following year for wastes treated and left on-site or shipped off-site for storage, treatment and/or disposal during any calendar year. Additional information and appropriate report forms may be obtained from the Agency by contacting:

    Administrative Compliance Unit
    Division of Land Pollution Control
    Illinois Environmental Protection Agency
    P.O. Box 19276
    Springfield, Illinois 62794-9276

Should you have any questions regarding this matter, please contact Kevin D. Lesko at 217/782-6762.

Very truly yours,

Lawrence W. Eastep, P.E., Manager
Permit Section
Division of Land Pollution Control

LWE:KDL:sap/0419q, 1-7

Attachment

cc: Maywood Region
    Division File - RCRA Closure
    USEPA Region V -- George Hamper
    Division of Legal Counsel
    Brian Martin - RPMS
    Stan Black
    McHenry County Health Department - Patrick McNulty

Illinois Environmental Protection Agency · P.O. Box 19276, Springfield, IL 62794-9276

ATTACHMENT 1

Soil Volatile Sampling Procedures

Procedure:

A. PREPARATION AND DECONTAMINATION OF SOIL SAMPLER (i.e. STAINLESS STEEL, BRASS, BRONZE, COPPER, etc.). An example of these samplers would be a shelby tube, split-barrel sampler with metal tube inserts or california sampler. These are only examples there maybe more types available. Also, the sample tube **must** be at least six inches long.

*1. Wash tubing or sampler with hot water and a nonfoaming detergent.

2. Rinse with hot water.

*3. Rinse with a solvent, such as hexane or acetone.

4. Rinse with very hot water to drive off solvent.

5. Rinse with deionized distilled water.

6. Air Dry

7. Store the sampler in aluminum foil until ready for use.

*Consult the laboratory for specific recommendations.

B. SOIL SAMPLING FOR VOLATILE ORGANICS

1. Using a properly decontaminated sampler (refer to preparation and decontamination instructions), push or drive the sampler to obtain a representative soil sample.

2. **DO NOT** remove sample from sample tube in the field. The laboratory should remove the sample from the sampling tube.

3. Immediately add clay or other cohesive material (i.e. wetted bentonite) to the ends of the sample to eliminate head space, if necessary.

4. Cover both ends of the sampler with aluminum foil. If possible, cover the aluminum foil with a cap.

5. Put the sample in storage at 4 degrees centigrade immediately.

6. Transport the samples to the laboratory as soon as possible. Most laboratories require delivery within 24 hours of sampling.

NOTE:

Soil samples which will be tested for volatile organic constituents <u>cannot</u> be composited because of the volatilizatio which would result from any compositing method.

Illinois Environmental Protection Agency · P.O. Box 19276, Springfield, IL 62794-9276

ATTACHMENT 2

This statement is to be completed by both the responsible officer and by the registered professional engineer upon completion of closure. Submit one copy of the certification with original signatures and three additional copies.

Closure Certification Statement

Closure Log C-548

The hazardous waste management S02, T01, and T04 units at the facility described in this document have been closed in accordance with the specifications in the approved closure plan. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

USEPA ID Number

Facility Name

Signature of Owner/Operator

Name and Title

Signature of Registered P.E.

Name of Registered and IIllinois Registration Number

Date

KDL

~~Brian Martin~~
Hank

Illinois Environmental Protection Agency · P.O. Box 19276, Springfield, IL 62794-9276

Refer to: 1110900003 -- McHenry County
Techalloy Division
ILD005178975
~~RCRA Closure~~ S.F./Tech. Repts

January 29, 1991

Jack M. Bailey
Special Assistant Attorney General
Environmental Control Division
100 West Randolph Street, 12th Floor
Chicago, Illinois 60601

Dear Jack:

As requested, during your January 24, 1991 phone conversation with Kevin Lesko, enclosed are portions of Techalloy's files relating to their RCRA Closure and the groundwater problem at the site.

The groundwater contamination is currently being overseen by Brian Martin of the Immediate Removal Unit. The groundwater contamination appears to have been caused by Solid Waste Management Unit(s) that are not regulated pursuant to the RCRA Closure requirements. As is the case at Southern California Chemical, the groundwater contamination cannot be addressed pursuant to the RCRA Closure requirements unless the contamination is traced from the RCRA regulated units to the groundwater. The groundwater contamination could, however, be addressed by RCRA if the USEPA would issue a 3008(h) order.

Techalloy's intial closure plan was denied by the Agency's October 3, 1990 letter. They have since submitted a revised closure plan. The Agency must approve the revised closure plan with appropriate conditions and modifications by February 8, 1991.

Should you have any questions regarding this matter, please contact Kevin D. Lesko at 217/782-6762.

Very truly yours,

Lawrence W. Eastep, P.E., Manager
Permit Section
Division of Land Pollution Control

LWE:KDL

EXHIBIT NO _____

Attachment

cc: Maywood Region
Division File - RCRA Closure
USEPA Region V - George Hamper
Stan Black
Brian Martin - RPMS
Gary King

C-548

cc: Region

-CAZ/KL

WESTON®
MANAGERS DESIGNERS/CONSULTANTS
THREE HAWTHORN PARKWAY
VERNON HILLS, ILLINOIS 60061
PHONE: 708-918-4000

10 December 1990

Mr. Lawrence W. Eastep, P.E., Manager
Permit Section
Division of Land Pollution Control
Illinois Environmental Protection Agency
P.O. Box 19276
Springfield, IL 62794-9276

Subject: 11090003--McHenry County
Techalloy Company, Inc.
ILD 005 178 975
RCRA - Closure Log #C-548

Dear Mr. Eastep:

After sending the revised Closure Plan to your attention on Friday 7 December 1990, I noted that we inadvertently left out the Part A documents requested in Item 2 of your letter. Specifically, you requested the original Part A application and any revised Part A's with proof of approval by the U.S. EPA or IEPA. Over the course of the operation of the facility Techalloy Company, Inc. has submitted three Part A Permit Applications. With this document, I am submitting the fourth acknowledging, based on the March IEPA Interim Status Standard Inspection, Part A Permit Application form that includes the acid rinse tank which has been classified by Illinois EPA as a hazardous waste accumulation tank. As you may be aware, as a separate item to the Closure Plan, we are working with Illinois EPA to get an approved concept plan for the modification of that facility to provide for two tanks to function as a hazardous waste accumulation tank so that secondary containment can be actively provided.

Neither U.S. EPA or Illinois EPA have been in the practice of approving Part A applications, so I have included only copies of those Part A's that have been submitted to the regulatory agencies over the past nine years.

Under separate cover we are also submitting this most recently revised Part A Permit Application to U.S. EPA.

RECEIVED
DEC 20 1990
IEPA-DLPC

IH275

EXHIBIT NO 16

If you have any questions regarding this matter, please do not hesitate to contact me.

Very truly yours,

ROY F. WESTON, INC.

John W. Thorsen, P.E.
Vice President

JWT/ieh

Enclosures

cc: Mr. Henry Lopes, Techalloy
Mr. Richard Perlick, Techalloy
Mr. George Miller, Techalloy

C-548 cc: Region CAZ/KL

WESTON®
MANAGERS DESIGNERS/CONSULTANTS
THREE HAWTHORN PARKWAY
VERNON HILLS, ILLINOIS 60061
PHONE: 708-918-4000

7 December 1990

Mr. Lawrence W. Eastep, P.E., Manager
Permit Section
Division of Land Pollution Control
Illinois Environmental Protection Agency
P.O. Box 19276
Springfield, IL 62794-9276

Subject: 11090003--McHenry County
Techalloy Company, Inc.
ILD 005 178 975
Revised Closure Plan

Dear Mr. Eastep:

Enclosed for your review and approval is the revised Closure Plan. This Closure Plan has been revised to incorporate the comments made in your review letter received by Techalloy in October 1990.

If you have any questions regarding the revisions to this document, please do not hesitate to contact WESTON at the above-noted phone number.

Very truly yours,

ROY F. WESTON, INC.

John W. Thorsen, P.E.
Project Director

JWT/ieh
cc: Mr. Henry Lopes, Techalloy
Mr. Richard Perlick, Techalloy
Mr. George Miller, Techalloy

Enclosure

IH274

RECEIVED
DEC 10 1990
IEPA-DLPC

EXHIBIT NO 15

FACILITY CLOSURE PLAN

TECHALLOY COMPANY, INC.
UNION, ILLINOIS
(ILD005178975)

Submitted to:

Illinois Environmental Protection Agency
Springfield, Illinois

Prepared By:

Roy F. Weston, Inc.
Three Hawthorne Parkway
Vernon Hills, Illinois 60061

RECEIVED
DEC 10 1990
IEPA-DLPC

29 November 1990

THOMAS W. SCHMITT

ATTORNEY AT LAW

November 7, 1990

Illinois Environmental Protection Agency
Office of Government and Community Affairs
P. O. Box 19276
Springfield, IL 62794-9276

Attention: J. Stanley Black

Re: Techalloy Company, Inc./Union
1110900003 - McHenry County
ILD #005178975
RCRA CLOSURE

Dear Mr. Black:

The Village of Union is in receipt of the closure plan for Techalloy Company, Inc. Enclosed is a copy of Kevin Lesko's letter of July 26, 1990 for your convenience of reference.

The Village has recently become aware of a chemical spill or spills at Techalloy Company, Inc. Apparently, the groundwater has been contaminated with undetermined amounts of certain chemical solvents, including 1,1,1-trichloroethane (TCA), trichloroethene (TCE) and perchloroethene (PCE) and their by-products. These solvents were previously used by Techalloy Company, Inc. to degrease wire.

Techalloy has recently completed groundwater sampling procedures at its facility. It also installed an off-site monitoring well at the intersection of Union Road and Highbridge Road in Union, Illinois, which is approximately one-half mile in a northwest direction from the facility. Enclosed is a copy of the report presented to the Village of Union on November 6, 1990. As you can see, the monitoring well located at the intersection of Union Road and Highbridge Road contains significant levels of TCA, PCE and other chemicals.

NOV 9 19[illegible]
GOVT. & COMMUNITY AFFAIRS
ILLINOIS EPA

MARENGO STATE BANK BUILDING
SUITE 202-206
100 WEST WASHINGTON STREET
P.O. BOX 115
MARENGO, ILLINOIS 60152
OFFICE: 815/568-8123 815/568-8130
RES: 815/568-8209

EXHIBIT NO 13

I think it is important that your agency be aware of this development. The Village would like to know what the EPA plans to do about this contamination. In addition, the Village of Union wants to know how your consideration of the closure plan is affected by the chemical contamination.

Your prompt response to this inquiry would be greatly appreciated.

Thank you.

Very truly yours,

Thomas W. Schmitt

TWS/law
Enclosures

cc: Ronald Miller, Village President
Kevin Lesko
Charles Zeal
Division File
Maywood Regional File
Matthew J. Dunn, Assistant Attorney General
J. Dennis Hastert, U. S. Representative, 14th District
John E. Friedland, Senator, 33rd District
DeLoris Doederlein, State Representative, 65th District
Dick Klemm, State Representative, 63rd District
Engineering Enterprises, Inc.

Illinois Environmental Protection Agency · P. O. Box 19276, Springfield, IL 62794-9276

217/782-6762

Refer to: Techalloy Company, Inc./Union
1110900003 - McHenry County
ILD #005178975

July 26, 1990

Thomas W. Schmitt
Union Village Attorney
100 West Washington St., Suite 202-206
Post Office Box 115
Marengo, Illinois 60152

Dear Mr. Schmitt:

Because of your previously expressed interest in the Southern California Chemical facility undergoing RCRA Closure in the Union area, I am sending you a copy of the above referenced facility's Closure Plan. The plan was received July 5, 1990, and the Agency is required to make a decision regarding the Closure Plan on or before October 3, 1990.

If you have further questions or wish to comment on this facility, please contact J. Stanley Black at 217/785-1427.

Sincerely,

Kevin Lesko

Kevin D. Lesko
Environmental Protection Engineer
Permit Section
Division of Land Pollution Control

KDL:dls/2737n/2738n

Enclosures

cc: Division File
Maywood FOS File

WESTON®
MANAGERS DESIGNERS/CONSULTANTS
THREE HAWTHORN PARKWAY
VERNON HILLS, ILLINOIS 60061
PHONE: 708-918-4000

15 October 1990

Mr. Brian Martin
Illinois Environmental Protection Agency
Division of Land Pollution Control
2200 Churchill Street
Springfield, Illinois 62706

Work Order No.: 1989-06-03

Subject: Groundwater Sampling Results
Techalloy, Inc., Union, Illinois

Dear Mr. Martin:

Roy F. Weston, Inc. (WESTON) recently completed groundwater sampling at the Techalloy, Inc. facility in Union, Illinois. Ten on-site monitoring wells, one production well, and one off-site monitoring well were sampled. In addition, one duplicate sample and one field blank sample were collected.

All samples were analyzed for volatile organic compounds (VOCs) and dissolved metals by Gulf Coast Laboratories of University Park, Illinois. One sample (TA-MW07) was analyzed for semivolatile organic compounds.

The sample results from the off-site well (TA-HBR and TA-HBR-Dup) indicate that a plume of chlorinated VOC-contaminated groundwater has migrated approximately 2,000 feet off-site of the Techalloy property in a northwesterly direction. The well locations are shown in Figure 1. All sample results are also attached to this letter.

If you have any questions concerning this submittal please do not hesitate to contact me at the above address.

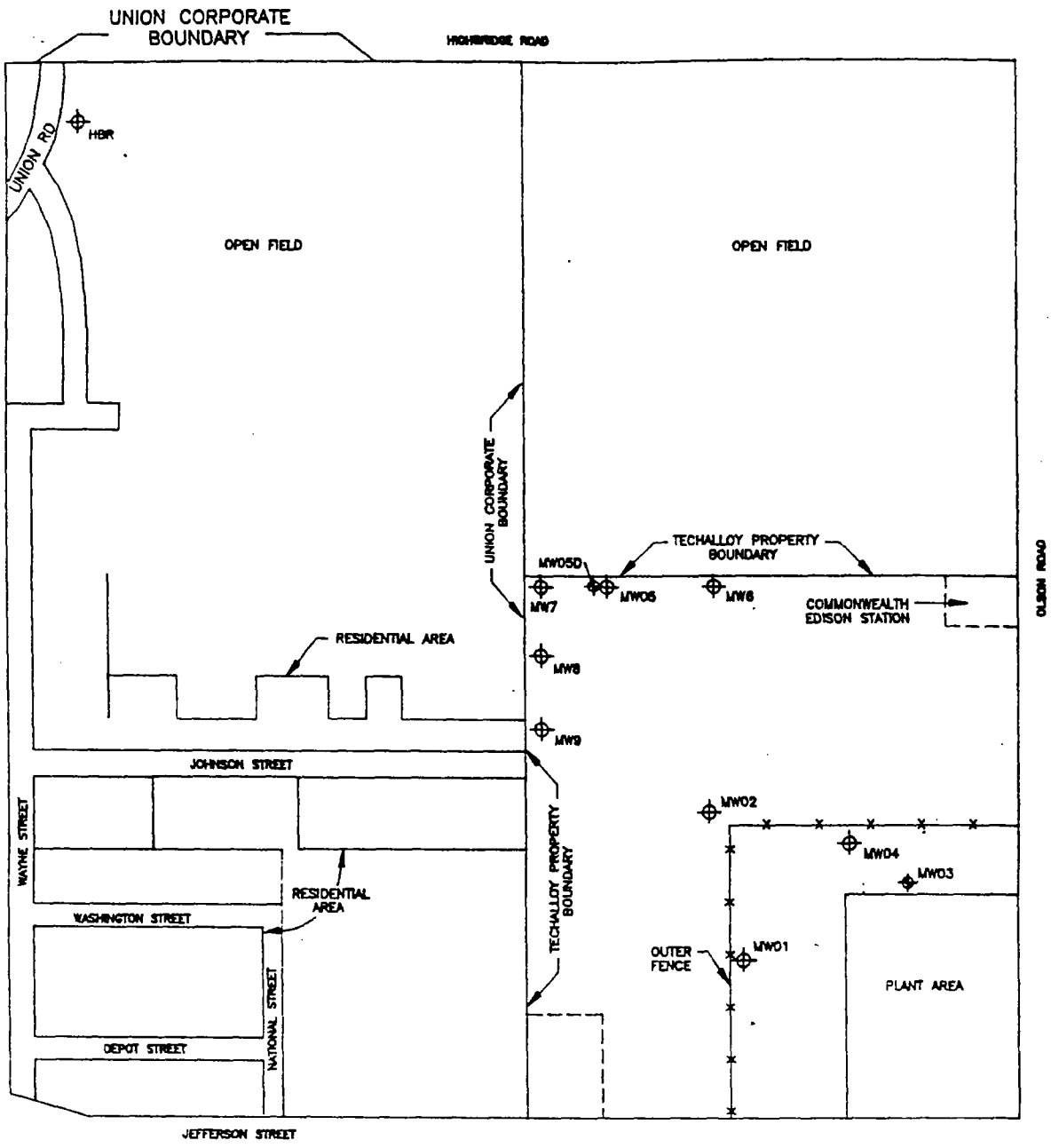
Very truly yours,

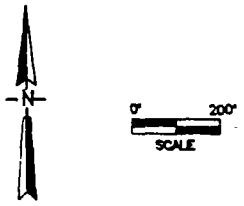
ROY F. WESTON, INC.

John W. Thorsen, P.E.
Vice President

JWT:amp

\WO\W1500\1177.LTR





LEGEND

- DEEP MONITORING WELL
- EXISTING SHALLOW MONITORING WELL

WESTON MANAGERS DESIGNERS/CONSULTANTS

Three Hawthorn Parkway
Vernon Hills, Illinois
60061

FIGURE 1

LOCATION OF MONITORING WELLS

TECHALLOY
UNION, ILLINOIS

19890608 (10 Oct 90) wwk

Table 1

Volatile Organic Compounds Detected in Groundwater
Techalloy, Inc.
Union, Illinois

Compound	Prod. Well	Field Blank	MW01	MW02	MW03	MW04
Methylene Chloride	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (1,1-DCE)	ND	ND	ND	ND	ND	190
1,1-Dichloroethane (1,1-DCA)	ND	ND	ND	ND	ND	200
1,2-Dichloroethene(total)(1,2-DCE total)	ND	ND	ND	ND	ND	97
1,2-Dichloroethane (1,2-DCA)	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane (1,1,1-TCA)	ND	ND	ND	100	ND	6,000
Trichloroethene (TCE)	ND	ND	ND	11	ND	270
1,1,2-Trichloroethane (1,1,2-TCA)	ND	ND	ND	ND	ND	18
Tetrachloroethene (PCE)	ND	ND	ND	76	ND	1,000

All values are in ug/l (parts per billion).
ND - Not detected.

\WO\W1500\1177.T-1

Table 1 (Cont.)

Volatile Organic Compounds Detected in Groundwater
Techalloy, Inc.
Union, Illinois

Compound	MW05	MW05D	MW06	MW07	MW08
Methylene Chloride	ND	ND	ND	ND	ND
1,1-Dichloroethene (1,1-DCE)	210	ND	ND	85	ND
1,1-Dichloroethane (1,1-DCA)	95	ND	ND	59	5
1,2-Dichloroethene (total)(1,2-DCE total)	8	ND	ND	24	ND
1,2-Dichloroethane (1,2-DCA)	ND	ND	ND	ND	ND
1,1,1-Trichloroethane (1,1,1-TCA)	5,600	310	39	2,800	190
Trichloroethene (TCE)	110	270	ND	140	100
1,1,2-Trichloroethane (1,1,2-TCA)	9	ND	ND	ND	ND
Tetrachloroethene (PCE)	620	ND	52	370	270

All values are in ug/l (parts per billion).
ND - Not detected.

\WO\W1500\1177.T-1

Table 1 (Cont.)

Volatile Organic Compounds Detected in Groundwater
Techalloy, Inc.
Union, Illinois

Compound	MW09	HBR	HBR-Dup
Methylene Chloride	8	10	ND
1,1-Dichloroethene (1,1-DCE)	ND	120	110
1,1-Dichloroethane (1,1-DCA)	ND	5	5
1,2-Dichloroethene (total)(1,2-DCE total)	ND	8	8
1,2-Dichloroethane (1,2-DCA)	ND	8	7
1,1,1-Trichloroethane (1,1,1-TCA)	ND	3,400	3,700
Trichloroethene (TCE)	ND	24	24
1,1,2-Trichloroethane (1,1,2-TCA)	ND	ND	ND
Tetrachloroethene (PCE)	ND	320	310

All values are in ug/l (parts per billion).
ND - Not detected.

\WO\W1500\1177.T-1

C548 P331396053 file

Illinois Environmental Protection Agency · P. O. Box 19276, Springfield, IL 62794-9276

217/782-6762

Date Received: July 5, 1990
Log #C-548

Refer to: 1110900003 -- McHenry County
Techalloy Illinois, Inc.
ILD005178975
RCRA-Closure

October 3, 1990

Techalloy Illinois, Inc.
P.O. Box 423
Union, Illinois 60180-0423

Dear Mr. Miller:

The closure plan for the hazardous waste (T01) tank treatment unit and the (T04) container treatment unit submitted by Techalloy Illinois, Inc. and prepared by Weston Consultants has been reviewed.

Due to the following deficiencies, the plan has been disapproved.

1. DESCRIPTION OF THE FACILITY - The plan should describe the type of industry, Standard Industrial Code (SIC Code), products, location, size and other general, summarized information. The plan must address and identify each hazardous waste management unit at the facility.

2. DESCRIPTION OF THE WASTE MANAGEMENT UNITS - Describe each unit at the facility and provide the process code and unit of measure code from the Part A (e.g., S01-1000 gal.). Include waste types for each unit (by standard chemical name and EPA Hazardous Waste No.), time period of use, dimensions, topography, soil types (as appropriate), and any other relevant information. Identify these units by reference to line numbers on the Part A application. Plans for closure must address all units on the Part A application. If some of the unit(s) will not be closed until some date in the future, identify those units and their expected date of closure. A copy of the following documents should be included in the closure plan:

   . the original Part A application (EPA Forms 3510-1 and 3510-3);

   . any revised Part A with proof of approval by USEPA or IEPA.

3. MAP OF FACILITY - The location of the facility must be provided with respect to township, range and section.

EXHIBIT NO 10

4. DETAILED DRAWING OF THE UNIT(S) - Submit a plan view of the unit(s), showing dimensions, appurtenant structures and relationship to other points or structures on the facility property, at a minimum. Identify the loading/unloading area(s) associated with each unit. Locate the outlet of the overfill line from the clarifier of the acid treatment unit. The scale of the drawing must be specified.

5. STORAGE AREA PAVEMENT DESCRIPTION - Provide a description of the type of pavement surface at the storage area(s), structural integrity (i.e., cracks, joints, deterioration) and containment structures (curbs). If containment structures are not present, describe the drainage features of the unit and its surroundings, and identify where spilled waste would flow. Additional sampling and analysis must be proposed to determine if releases have occurred to soil, groundwater or surface water.

6. Agency records indicate that K062 (spent pickle liquor) is treated on-site in the treatment unit. If this is not the case provide a demonstration which shows that the pickling solution should be hazardous only due to its characteristic i.e. D002 and D007. If the waste is shown to be hazardous only due to its characteristic, demonstrate that the supernate from the clarifier is not characteristically hazardous. If the waste is a listed hazardous waste or the supernate is characteristically hazardous modify the closure plan as appropriate to reflect the change in the classification of the waste. This modification would include at a minimum:

   -- Address closure of the 3,000 gallon water holding tank.

   -- Address closure of the acid rinse tanks on the production line.

   -- Demonstrate that the leak from the acid rinse tank discovered in 1985 did not contaminate the soil.

7. SAMPLING PLAN AND ANALYTICAL METHODS - Closure of hazardous waste management units must include sampling of soil to demonstrate clean closure or to determine the nature and extent of soil contamination. If possible, your sampling program should be extensive enough to determine the lateral and vertical extent of contamination to the level of the Practical Quantitation Limit (PQL) identified in SW-846 (Third Edition) for the constituents of the waste(s) managed. Soil sampling should also be provided for container or tank storage areas which are founded on soil or gravel or on concrete pads which are not water tight or do not have curbs or other forms of secondary containment (51 FR 16426, May 2, 1986). All samples which are to be taken must be handled in accordance with 40 CFR, Part 261, Appendix III and the soil volatile sampling procedures which are included in the Agency's closure plan instructions as Attachment 7. The analytical methods which will be used must be specified and must be EPA-approved.

An adequate soil sampling and analysis plan should include the following:

a. parameters to be analyzed (consider waste(s) managed, degradation products, etc.)

b. locations of samples (horizontal location and depth)

c. background samples (when applicable)

d. sampling methods and equipment including sample preservation and chain of custody methods

e. analytical methods. Include a description of any statistical methods which may be used to interpret the analytical data.

f. evidence of a quality assurance/quality control plan for laboratory analyses

9. DESCRIPTION OF EQUIPMENT CLEANING - Any equipment, including heavy earth-movers or smaller tools, should be scraped and washed to remove waste residues. The residues should be managed as hazardous waste, and this cleaning and management should be described in the closure plan.

10. STATEMENT OF FACILITY STATUS AFTER CLOSURE - The closure plan should clearly state the status of the hazardous waste facility after closure is completed. For example, it should state if a storage facility is to be operated as a generator (less-than-90-day storage), and it should describe whether closure is partial or complete. If partial, it should name both the units covered by the closure plan as well as those remaining in operation. It should indicate whether the facility will continue to be a generator and transporter (if applicable).

    Indicate which of the following categories describes the intended use of the facility:

    a. No treatment, storage or disposal will occur at this facility.

    b. Disposal will continue at this facility.

    c. This facility will continue to treat hazardous wastes.

    d. Less than 1,000 kg/month will be generated, and storage will be for less than 90 days.

    e. The facility will generate and store more than 1,000 kg/month for less than 90 days.

    f. The facility will generate and store more than 1,000 kg/month for more than 90 days.

g. The facility will generate and store more than 100 kg/month, but less than 1,000 kg/month for less than 180 days (270 days if applicable).

h. The facility will be exempt from treatment storage and disposal (TSD) regulation under RCRA.

i. The facility will be a transporter of hazardous waste.

11. The Certification Regarding Potential Releases from Solid Waste Management Units (SWMU) should be modified to include all units which manage solid waste. This includes hazardous waste units not listed on the facility's Part A application, and areas which handle special waste. Any areas which now and/or have managed, i.e. store, treat or dispose, the following waste would appear to be SWMUs:

- Pickling rinse waters -- hazardous, presently stored in two tanks, 10,500 gallons and 16,500 gallons
- ADS sludge -- hazardous, stored in drums
- Plating filters -- hazardous, stored in drums .
- Metal hydroxide sludge -- hazardous stored in a hopper
- SP-6 sludge -- special waste
- Waste oils -- special, stored in drums
- Molybdenum Disulfide process filters -- special waste

12. Clearly identify the location where each sample was obtained for the analytical data provided in Appendix C of the closure plan. For example is the waste described as "lined pit" from the acid rinsewater tanks? Is the waste described as "rinse CN" sampled prior to treatment or following treatment?

Pursuant to 35 IAC 725.212(d)(4), you must submit a complete, revised closure plan (i.e., not just revised or additional pages) (one original and 3 copies) within thirty (30) days which adequately responds to the above noted comments. Failure to submit a revised plan within thirty (30) days of the date of your receipt of this letter will be considered non-compliance with the interim standards of 35 IAC, Part 725, Subpart G -- Closure and Post-closure and Subpart H -- Financial Requirements.

Should you have any questions concerning this matter, please contact Kevin D. Lesko at 217/782-6762.

Very truly yours,

Lawrence W Eastep By KDL

Lawrence W. Eastep, P.E., Manager
Permit Section
Division of Land Pollution Control

LWE:KDL:rd3477n/17-21

Enclosure

cc: Maywood Region
Division File, Closure
George Hamper, USEPA Region V
Kevin Lesko
Enforcement

CLOSURE LOG # : 548
FACILITY : TECHALLOY CO INC
STATE ID # : 1110900003
FED ID # : ILD005178975
STATUS : R
TYPE : F
NOTIFY RPMS : Y

LOCATION : UNION
COUNTY : MCHENRY
REVIEWER : KL
NOTIFY FOS : Y
NOTIFY CMS : Y
PM : 90/07/25
INSP :

1st-RECD : 90/07/05
90-DUE : 90/10/03
1-MAILED : 90/10/03
APP or REJ : REJ

2nd-SCHED :
2nd-RECD :
60-DUE :
2-MAILED :

CERTIFICATION DUE :
CLOSED :
UNITS CLOSED : T01,T04
UNITS REMAIN :
OR T STATUS: G
COMMENTS :

CERTIFICATION RECD :
CLEAN CLOSURE : Y
CIL SENT :
PECL SENT :

CONTAM SOIL-Y/N/?: ABOVE PQL-Y/N/?: ABOVE CUO-Y/N/?: CONTAM-VO/SVO/M/?:
CONTAM GW-Y/N/?: ABOVE PQL-Y/N/?: ABOVE CUO-Y/N/?: CONTAM-VO/SVO/M/?:

REMEDIATION-PROP/IN PROG/COMPLETE/NA: VOLUME: UNIT-T/CY:

SOIL VENT-Y/N: AERATE-Y/N/ON/OFF: STABILIZE-Y/N/ON/OFF:
CAP IN PLACE-Y/N: BIOREM-Y/N: INCIN-Y/N/ON/OFF:
LANDFILL-Y/N/ON/OFF: TREATMENT-Y/N/ON/OFF: PUMP & TREAT GW-Y/N:

PROCESS 1: T01	AMOUNT 1: 2000	UNIT1: G	ADD/DEL: DEL
PROCESS 2: T04	AMOUNT 2: 3000	UNIT2: G	ADD/DEL: DEL
PROCESS 3:	AMOUNT 3:	UNIT3:	ADD/DEL:
PROCESS 4:	AMOUNT 4:	UNIT4:	ADD/DEL:
PROCESS 5:	AMOUNT 5:	UNIT5:	ADD/DEL:
PROCESS 6:	AMOUNT 6:	UNIT6:	ADD/DEL: